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REMARKS

In response to the Final Office Action mailed on January 8, 2008, Applicants respectfully request reconsideration. To further the prosecution of this application, Applicants submit the following amendments as well as remarks discussing patentability of rejected claims.

Applicants encourage the Examiner to call the below named Attorney if such a call will help expedite prosecution of this application to issuance.

Rejection of Claims under 35 U.S.C. §103(a)

The Examiner has rejected claim 1 under 35 U.S.C. §103(a) based on Grace (U.S. Publication 2004/0075680), Chang (U.S. Publication 2004/0051731), and Benhase (U.S. Publication 2004/0243945). The Office Action likens elements in these references to reject the all of the claims.

Applicants have amended claim 1 to include limitations in previously pending claim 53 to expedite this case to allowance.

Additionally, Applicants have reviewed the Grace disclosure and respectfully submit that, contrary to the assertions presented in the pending office action, amended claim 1 includes patentable limitations over the cited references.

For example, amended claim 1 recites:

in a separate region from the first column of icons and the second column of icons, initiating display of a particular icon representing a particular storage area network resource;

initiating display of a relationship path between the particular icon and a given icon in the first column;

receiving a command to expand a viewing of the particular icon;
and

in response to receiving the command, expanding the particular icon to include a third column of icons, the third column of icons including a group of icons representing resources associated with the particular storage area network resource.

Applicants respectfully assert that the office action uses hindsight to reject the claimed invention because the combination of references do not teach or suggest the claimed invention and the claimed invention includes limitations not found in any of the references.

For example, to reject the claimed invention, the office action recites item 410 in figure 4 of Benhase as well as paragraph 10 and 12 of Grace. Item 410 refers to a so-called "source region" including a column of resources.

Paragraphs 10 and 12 of Benhase read as follows:

[0010] The invention relates to graphical user interfaces for managing electronic networks, such as computer networks, storage area networks (SANs), and the like. Specifically, the invention provides a simplified means of managing large numbers of parameters associated with devices in such networks.

[0011] In a preferred embodiment, the invention provides a method of displaying devices forming a network. In a first step, a computer system associated with a graphical user interface queries the network to determine what devices are present in the network, and the interconnections of such devices. The results of this determination are stored, as is the time of this determination. Later, a second

query is performed and the results are compared to the first query. Symbols representing elements of the network are displayed on the graphical user interface. When changes are detected between the first and second network query, the changes are indicated by altering the manner in which the symbols are displayed that represent the elements of the network that have changed. As an example, such a change in the network could include the loss of connectivity to a switch, server, or storage device. The symbol for the network element lost would then be displayed translucently, or in another color, as examples, to indicate the change.

[0012] Network parameters, such as the devices coupled to the network and the configurations of such devices, can be displayed in various ways under the invention. For example, such information can be displayed in diagram form or in table form. In a preferred embodiment, the graphical user interface includes an expandable tree diagram of expandable symbols that can be navigated to explore the structure of a network. As an example, the tree diagram can be one of a series of windows that make up the user interface as a whole. In various possible embodiments, other portions of the user interface (e.g., windows) can include a summary of a symbol of the tree diagram that is selected by a user, and an event log displaying a running history of network connectivity and configuration changes that are detected. Various possible embodiments may include other features as described herein, either alone or in combination. (emphasis added)

Citing of Benhase illustrates the drawbacks of the prior art. For example, to identify a relationship between a resource in one column and a resource in another column, the user has to view text in each column and traverse up and down the different hierarchies. Even this does not ensure that the user can identify a relationship. There are no relationship paths.

Contrary to the assertions set forth in the office action, Applicants respectfully submit that none of the references teaches or suggests initiating display of a particular icon representing a particular storage area network resource in a separate region from the first column of icons and the second column of icons and initiating display of a relationship path between the particular icon and a given icon in the first column. Benhase only shows two columns of icons - not an additional icon in a separate region as in the claimed invention. As mentioned, there are no relationship paths between any of the columns of icons in Benhase.

Grace also does not teach or suggest such limitations as it does not discuss relationship paths or columns of icons. Instead, the cited portions of Grace only indicates that a graphical user interface can include an expandable tree for exploring the structure of a network. This does not teach or suggest the specific way in which the claimed invention enables navigation and viewing of resources. For example, the claimed invention recites receiving a command to expand a viewing of a particular icon and, in response to receiving the command, expanding the particular icon to include a third column of icons including a group of icons representing resources associated with the particular storage area network resource.

Expanding the particular icon to include a column of associated resources as in the claimed invention enables a viewer to navigate and view resources in a storage area network in a different way than in the cited prior art. For example, a viewer can click on an icon to expand the icon into a new column of icons in relation to other existing columns of icons already displayed on a display screen. Nothing in the cited prior art teaches or suggests expanding of columns of icons and relationship paths between the columns of icons.

Displaying relationship paths between columns of icons enables the viewer to identify relationships more easily over conventional methods. Such a configuration is useful because storage area network often have many resources of the same type, but which are related to another group of the same type of resources. Displaying the resources in columns and enabling expansion of a resource into a column of resources enables the viewer to quickly identify groupings of resources and relationships between the columns of resources. As shown in figure 4 of Benahase, there are no relationship paths between columns nor is there expansion of a resource into a column of sub-resources. Grace also does not illustrate relationships between columns of resources and expansion as it only shows groupings of different types of resources in figure 6.

The office action also indicates that Chang at figure 19 illustrates relationships between icons that represent resources. However, Applicants respectfully submit that the claimed invention is unique over this reference as well because Chang also does not teach or suggest relationships paths between columns of icons. Note also that the resources in Chang are not in columnar form but are instead randomly shown in the network diagram. Additionally, Chang also does not teach or suggest, based on navigation input, expansion of an icon into a column of icons having relationship paths to icons in other columns as in the claimed invention.

Thus, the claimed invention includes a limitation not found in any of the cited references.

As mentioned above, the claimed invention provides a unique and useful way to navigate and view different resources in a storage area network. That is, displaying resources in columnar form with corresponding relationship paths there between enables navigation and viewing of resources unlike that in the cited prior art.

For the reasons stated above, Applicants respectfully submit that amended claim 1 is patentably distinct and advantageous over the cited prior art, and the rejection of claim 1 under 35 U.S.C. §103 should be withdrawn. Accordingly, allowance of amended claim 1 is respectfully requested. If the rejection of claim 1 is to be maintained, Applicants respectfully request that it be pointed out with particularity where the cited prior art discloses the above limitations.

By virtue of dependency, claims 2-3, 5-14, 52, 54 and 55 should also be in allowable condition as well.

Applicants respectfully submit that dependent claims 54 and 55 each includes further limitations distinguishing the invention over the cited prior art. For example, claim 54 recites "in lieu of displaying a single relationship path between the particular icon and the given icon in the first column, initiating display of multiple relationship paths between icons in the third column and icons in the first column to illustrate that resources associated with the particular resource in the third column are related to resources represented by icons displayed in the first column." Thus, when expanding the particular icon into the third column of icons, relationship information can be modified (e.g., change from a single relationship path to multiple relationship paths) to show more specific relationships between newly displayed icons in the third column and the icons in the first column. For example, the additional relationship paths enable the viewer to zoom in and view the more specific resources of a selected resource in columnar form as well as view additional corresponding relationships.

The office action uses the same prior art as discussed above to reject this claim. For example, the office action asserts that information can be displayed in table form as in paragraph 12 of Grace. Applicants respectfully submit that mere

mention of tables does not teach or suggest the claimed invention. Also, Grace further discusses use of a "table view" for displaying information as in paragraph 50 below:

[0050] Topology Option 666 can be selected to display information describing the connectivity of the portion of the network associated with selected symbol 608. For example, the diagrams 202 and 302 of FIGS. 2 and 3 show views available through topology Option 666. Other topology views may also be provided. In addition to providing topology diagrams such as diagrams 202 and 302, such information may also be presented in table form, e.g., as with the Detail Option view which generally defines a parameter for a device on a given row, and then uses columns to the right of the parameter to report name value pairs corresponding to additional information relating to the parameter. For example, the parameter could itself be a device, such as a switch, and the name value pairs reported in the table could be configuration options (e.g., logical instructions, operating system version, etc.), or status indications of the switch (e.g., whether a connection is established and whether communication on the connection is functional, performance parameters, etc.). It will be appreciated that a name value pair refers to an array of information having at least two dimensions, wherein one dimension contains the identity of a variable, and another dimension contains the values for the respective variables in the array. (emphasis added)

This passage in Benhase indicates a specific use of a table, which is different than the claimed invention. Accordingly, the mention of tables in Benhase and corresponding teachings do not teach or suggest the claimed invention. Note also that there are no relationship paths amongst the columns of information nor is there an indication that the table in Benhase is expandable and that new relationship paths appear with other displayed tables upon expansion of a selected table.

Thus, Applicants respectfully submit that claim 54 is in condition for allowance.

Applicants respectfully submit that dependent claim 55 includes further limitations over the cited prior art as well. For example, claim 55 recites "in addition to expanding the particular icon to include the third column of icons, initiating display of a second container to encompass the particular icon as well as the third column of icons, the second container illustrating that the third column of icons represents storage area network resources associated with the particular resource represented by the particular icon."

Thus, when expanding the particular icon into the third column of icons, display of the second container enables the viewer to quickly identify that the third column of icons represents resources associated with the expanded icon. The cited prior art provides does not provide such a function. For example, the cited prior art asserts that Benhase discloses such a function in Figure 4. Applicants respectfully disagree. There is no new container created upon selection of a resource in the expandable tree. Thus, Applicants respectfully submit that claim 55 is in condition for allowance as well.

Applicants have amended claim 15 to include limitations of previously pending claims 16 and 17. Based on applicable reasons as discussed above for amended claim 1, the recited reference does not teach or suggest aspects of the claimed invention as in claim 15. By virtue of dependency, claims 18-21 should also be in allowable condition as well.

Claim 4 recites "allocating a visual region in relation to a corresponding icon to receive input commands; and in response to detecting receipt of a generated input command in the visual region by a user, expanding the first relationship view of managed entities in the storage area network into an

expanded relationship view including a third column of multiple icons disposed between the first column and the second column, relationship paths being displayed between icons in the first column and the third column and between icons in the third column and the second column, the icons in the third column representing other previously hidden managed entities associated with the storage area network." Applicants respectfully traverse the rejection of claim 4 because none of the cited paragraphs in Grace, Chang or Benhase used to reject the claimed invention teach or suggest a technique equivalent to this claim limitation.

For example, the cited prior art does not illustrate an expanded view including an extra column (e.g., third column) between a first column and a second column. Instead, the cited passages describe use of a hierarchical tree as known in the prior art. Displaying a mere hierarchical tree is not equivalent to creating a third column between a first and second column. Moreover, the cited passages do not recite displaying the additional relationship paths between icons in the third column and the first and second column that are present in the expanded view. Thus, the claimed invention enables the viewer to selectively expand a topology and view additional columns of managed entities and corresponding relationships that were not present in a previous viewing. The cited prior art recites no such functionality.

The office action also cites FIG. 3-5 of Benhase and FIG. 19 of Chang to reject the claimed invention. There is no discussion in the office action as to how this cited reference teaches or suggests the use of the third column and related limitations as recited by claim 4. Instead, figure 19 of Chang merely shows a diagram of a storage area network. Figures 3-5 illustrate user interfaces for viewing storage area network resources, none of which includes creation of a third column of icons. Accordingly, Applicants respectfully request allowance of claim 4.

Applicants have amended claim 22 to include the limitations of previously pending claim 25. For similar reasons that claim 4 is allowable, Applicants respectfully submit that amended claim 22 is also allowable over the cited prior art. By virtue of dependency, Applicants respectfully submit that claims 23-24, and 26-35 are in condition for allowance as well.

Applicants have amended claim 15 to include the limitations of previously pending claims 16 and 17. Applicants respectfully submit that the claimed invention recites a specific way to explore network resources. In accordance with the reasons as discussed above, and contrary to the assertions set forth in the office action, Applicants respectfully submit that the cited prior art does not disclose expansion of an icon into additional icons and corresponding relationship paths. Thus, Applicants respectfully submit that amended claim 15 is in condition for allowance. By virtue of dependency, Applicants respectfully submit that claims 18-21, and 47-51 are in condition for allowance as well.

Also, note that claim 18 recites "displaying a graphical container encompassing the first icon and the expanded relationship view of the managed entity associated with the first icon to indicate that the additional icons and corresponding managed entities are related to the first icon and corresponding managed entity." The office action recites that paragraph 12 of Grace includes an equivalent to the claimed invention. This paragraph reads as follows:

[0012] Network parameters, such as the devices coupled to the network and the configurations of such devices, can be displayed in various ways under the invention. For example, such information can be displayed in diagram form or in table form. In a preferred embodiment, the graphical user interface includes an expandable tree diagram of expandable symbols that can be navigated to explore the structure of a network. As an example, the tree diagram can be one of a series

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of windows that make up the user interface as a whole. In various possible embodiments, other portions of the user interface (e.g., windows) can include a summary of a symbol of the tree diagram that is selected by a user, and an event log displaying a running history of network connectivity and configuration changes that are detected. Various possible embodiments may include other features as described herein, either alone or in combination.

Applicants respectfully submit that this passage in Grace and cited text merely discloses that an expandable tree diagram of icons can be used to explore the structure of a network. The summary of the symbol selected from the expandable tree does not include a relationship view of columns of icons and corresponding relationship paths. In other words, the summary display 606 in FIG. 6 of Grace does not illustrate any relationship paths between managed entities as recited by the claimed invention. Thus, the cited passage is not equivalent to what Applicants claim as their invention. Instead, the claimed invention is directed towards selection of one or more entries in a hierarchical tree, generation of a navigable relationship view of columns of resources associated with the selected managed entity. The viewer therefore can select a managed entity from a hierarchical tree and thereafter navigate amongst a relationship view associated with the selected managed entity. Thus, contrary to the office action, the cited reference does not disclose the claimed invention. Accordingly, Applicants respectfully request allowance of claim 18 as well.

Applicants have amended claim 36 to include the limitations of previously pending claims 37 and 38. For similar reasons as discussed above for claim 15, Applicants respectfully submit that amended claim 36 is allowable as well. By virtue of dependency, claims 39-42 should be in condition for allowance as well.

Applicants request that the Examiner reconsider the arguments made in the last reply to office action for claim 45. Applicants submit that the office

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action uses the claimed invention as a blueprint to reject the claimed invention as none of the references discloses use of relationship paths between columns of icons as discussed above. Accordingly, Applicants respectfully request allowance of claim 45.

Applicants have canceled claim 46.

CONCLUSION

In view of the foregoing remarks, Applicants submit that the pending claims as well as newly added claims are in condition for allowance. A Notice to this affect is respectfully requested. If the Examiner believes, after reviewing this Response, that the pending claims are not in condition for allowance, the Examiner is respectfully requested to call the Representative below.

Applicants hereby petition for any extension of time which is required to maintain the pendency of this case. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50-3735

Respectfully submitted,

/PPK/

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